

KATO

Application No. 09/496,038

February 6, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A satellite broadcasting receiver receiving a signal radio waves from a-respective broadcasting satellites, comprising:

first to nth (where n is an integer equal to or larger than 2) amplifiers respectively amplifying first to nth signals extracted from said signal radio waves from the respective broadcasting satellites;

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a connection node supplied with outputs from said first to nth amplifiers; and
a power supply control circuit controlling said first to nth amplifiers to set a current flowing through one of said first to nth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted through said connection node.

2. (original) The satellite broadcasting receiver according to claim 1, further comprising a (n+1)th amplifier for amplifying an output transmitted from said connection node.

3. (original) The satellite broadcasting receiver according to claim 2, wherein each of said first to (n+1)th amplifiers includes a high electron mobility transistor.

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4. (original) The satellite broadcasting receiver according to claim 2, further comprising a frequency converting circuit converting an output from said (n+1)th amplifier to an intermediate frequency signal.

5. (currently amended) A satellite broadcasting receiver receiving signal radio waves from broadcasting satellites, comprising:

first to fourth amplifiers respectively amplifying first to fourth signals extracted

A7 | from said signal radio waves;

a first connection node supplied with outputs from said first and second amplifiers;

a second connection node supplied with outputs from said third and fourth amplifiers;

a third connection node supplied with outputs from said first and second connection nodes;

a fifth amplifier amplifying an output transmitted from said third connection node;

a power supply control circuit controlling said first to fourth amplifiers to set a current flowing through one of said first to fourth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted to said fifth amplifier through said third connection node.

6. (original) The satellite broadcasting receiver according to claim 5, wherein each of said first to fifth amplifiers includes a high electron mobility transistor.

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7. (original) The satellite broadcasting receiver according to claim 5, further comprising a frequency converting circuit converting an output from said fifth amplifier to an intermediate frequency signal.

8. (currently amended) The satellite broadcasting receiver according to claim 5, further comprising:

sixth to ninth amplifiers respectively amplifying fifth to eighth signals extracted

A7 | from said signal radio waves;

a fourth connection node supplied with outputs from said sixth and seventh amplifiers;

a fifth connection node supplied with outputs from said eighth and ninth amplifiers;

a sixth connection node supplied with outputs from said fourth and fifth connection node;

a tenth amplifier amplifying an output transmitted from said sixth connection node; and

a seventh connection node supplied with outputs from said fifth and tenth amplifiers, wherein

said power supply control circuit controls said sixth to ninth amplifiers to set a current flowing through one of said sixth to ninth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one

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amplifier is transmitted to said tenth amplifier through said sixth connection node, and controls said fifth and tenth amplifiers to set currents flowing through said fifth and tenth amplifiers respectively at a prescribed value and 0 such that an output from said fifth amplifier is transmitted through said seventh connection node and set currents flowing through said fifth and tenth amplifiers respectively at 0 and a prescribed value such that an output from said tenth amplifier is transmitted through said seventh connection node.

A7 9. (original) The satellite broadcasting receiver according to claim 8, wherein each of said sixth to tenth amplifiers includes a high electron mobility transistor.

10. (original) The satellite broadcasting receiver according to claim 8, further comprising a frequency converting circuit converting an output from said seventh connection node to an intermediate frequency signal.

11. (currently amended) A satellite broadcasting receiver receiving signal radio waves from broadcasting satellites, comprising:

first to fourth amplifiers respectively amplifying first to fourth signals extracted from said signal radio waves;

a first connection node supplied with outputs from said first and second amplifiers;

a second connection node supplied with outputs from said third and fourth amplifiers;

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a fifth amplifier amplifying an output transmitted from said first connection node;
a sixth amplifier amplifying an output transmitted from said second connection node;

a third connection node supplied with outputs from said fifth and sixth amplifiers;
and

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a power supply control circuit controlling said first to fourth amplifiers to set a current flowing through one of said first to fourth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted to said fifth or sixth amplifier through said first or second connection node, and controlling said fifth and sixth amplifiers to set currents flowing through said fifth and sixth amplifiers respectively at a prescribed value and 0 such that an output from said fifth amplifier is transmitted through said third connection node and set currents flowing through said fifth and sixth amplifiers respectively at 0 and a prescribed value such that an output from said sixth amplifier is transmitted through said third connection node.

12. (original) The satellite broadcasting receiver according to claim 11, wherein each of said first to sixth amplifiers includes a high electron mobility transistor.

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13. (original) The satellite broadcasting receiver according to claim 11, further comprising a frequency converting circuit converting an output from said third connection node to an intermediate frequency signal.

A7 14. (currently amended) A satellite broadcasting receiving system receiving signal radio waves from broadcasting satellites, comprising
first and second satellite broadcasting receivers, each including
first to fourth amplifiers respectively amplifying first to fourth signals extracted from said signal radio waves,
a first connection node supplied with outputs from said first and second amplifiers,
a second connection node supplied with outputs from said third and fourth amplifiers,
a third connection node supplied with outputs from said first and second connection nodes,
a fifth amplifier amplifying an output transmitted from said third connection node,
a power supply control circuit controlling said first to fourth amplifiers to set a current flowing through one of said first to fourth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted to said fifth amplifier through said third connection node, and
a frequency converting circuit converting an output from said fifth amplifier to an intermediate frequency signal,

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said system further comprising
an integrally formed waveguide shared by said first and second satellite
broadcasting receivers.

15. (currently amended) A satellite broadcasting receiving system
receiving signal radio waves from broadcasting satellites, comprising
first and second satellite broadcasting receivers, each including
first to fourth amplifiers respectively amplifying first to fourth signals extracted
A7 | from said signal radio waves,
a first connection node supplied with outputs from said first and second amplifiers,
a second connection node supplied with outputs from said third and fourth
amplifiers,
a third connection node supplied with outputs from said first and second
connection nodes,
a fifth amplifier amplifying an output transmitted from said third connection node,
and
a frequency converting circuit converting an output from said fifth amplifier to an
intermediate frequency signal,
said system further comprising
a power supply control circuit controlling said first to fourth amplifiers to set a
current flowing through one of said first to fourth amplifiers at a prescribed value and set

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currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted to said fifth amplifier through said third connection node,

first and second output terminals,

a switching circuit controlled by said power supply control circuit for selectively switching outputs from said frequency converting circuits of said first and second satellite broadcasting receivers and applying said outputs to said first and second output terminals, and

A7 an integrally formed waveguide shared by said first and second satellite broadcasting receivers.

16. (original) The satellite broadcasting receiving system according to claim 15, wherein each of said first to fifth amplifiers in each of said first and second satellite broadcasting receivers includes a high electron mobility transistor.

17. (currently amended) A satellite broadcasting receiving system receiving signal radio waves from broadcasting satellites, comprising

first and second satellite broadcasting receivers, each including

first to fourth amplifiers respectively amplifying first to fourth signals extracted

from said signal radio waves,

a first connection node supplied with outputs from said first and second amplifiers,

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a second connection node supplied with outputs from said third and fourth amplifiers,

a third connection node supplied with outputs from said first and second connection nodes, and

a fifth amplifier amplifying an output transmitted from said third connection node, said system further comprising

A 7 a power supply control circuit controlling said first to fourth amplifiers to set a current flowing through one of said first to fourth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted to said fifth amplifier through said third connection node,

first and second frequency converting circuits each converting an applied amplifier output to an intermediate frequency signal,

a switching circuit controlled by said power supply control circuit for selectively switching outputs from respective said fifth amplifiers of said first and second satellite broadcasting receivers and applying the outputs to said first and second frequency converting circuits, and

an integrally formed waveguide shared by said first and second satellite broadcasting receivers.

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18. (original) The satellite broadcasting receiving system according to claim 17, wherein each of said first to fifth amplifiers in each of said first and second satellite broadcasting receivers includes a high electron mobility transistor.

19. (currently amended) A satellite broadcasting receiving system receiving signal radio waves from broadcasting satellites, comprising

first and second satellite broadcasting receivers, each including

first to fourth amplifiers respectively amplifying first to fourth signals extracted

A7 | from said signal radio waves,

a first connection node supplied with outputs from said first and second amplifiers,

a second connection node supplied with outputs from said third and fourth amplifiers,

a third connection node supplied with outputs from said first and second connection nodes, and

a fifth amplifier amplifying an output transmitted from said third connection node,

said system further comprising

a power supply control circuit controlling said first to fourth amplifiers to set a current flowing through one of said first to fourth amplifiers at a prescribed value and setting currents flowing all the other amplifiers at 0 such that an output from said one amplifier is transmitted to said fifth amplifier through said third connection node,

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a frequency converting circuit converting an applied amplifier output to an intermediate frequency signal,

a switching circuit controlled by said power supply control circuit for selectively switching an output from said fifth amplifier of said first or second satellite broadcasting receiver and applying it to said frequency converting circuit, and

A1 an integrally formed waveguide shared by said first and second satellite broadcasting receivers.

20. (original) The satellite broadcasting receiving system according to claim 19, wherein each of said first to fifth amplifiers in each of said first and second satellite broadcasting receivers includes a high electron mobility transistor.

21. (new) A satellite broadcasting receiver receiving a signal radio wave from a broadcasting satellite, comprising:

first to nth (where n is an integer equal to or larger than 2) amplifiers respectively amplifying first to nth signals extracted from said signal radio wave, the first to nth signals comprising different components of said signal radio wave;

a connection node supplied with outputs from said first to nth amplifiers; and

a power supply control circuit controlling said first to nth amplifiers to set a current flowing through one of said first to nth amplifiers at a prescribed value and set

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currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted through said connection node.

22. (new) The satellite broadcasting receiver according to claim 21, wherein one of the first to nth signals comprises a horizontal polarization component of the signal radio wave and another of the first to nth signals comprises a vertical polarization component of the signal radio wave.

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23. (new) The satellite broadcasting receiver according to claim 21, further comprising a (n+1)th amplifier for amplifying an output transmitted from said connection node.

24. (new) The satellite broadcasting receiver according to claim 23, wherein each of said first to (n+1)th amplifiers includes a high electron mobility transistor.

25. (new) The satellite broadcasting receiver according to claim 23, further comprising a frequency converting circuit converting an output from said (n+1)th amplifier to an intermediate frequency signal.

26. (new) A satellite broadcasting receiver receiving a signal radio wave from a broadcasting satellite, comprising:

first to nth (where n is an integer equal to or larger than 2) amplifiers respectively amplifying first to nth signals extracted from said signal radio wave;

a connection node supplied with outputs from said first to nth amplifiers; and

A7 a power supply control circuit controlling said first to nth amplifiers to set a current flowing through one of said first to nth amplifiers at a prescribed value and set currents flowing through all the other amplifiers at 0 such that an output from said one amplifier is transmitted through said connection node;

wherein the first to nth signals are provided to the first to nth amplifiers through respective first to nth signal input lines, the first to nth signal input lines not being connected to a common connection node.

27. (new) The satellite broadcasting receiver according to claim 26, further comprising a (n+1)th amplifier for amplifying an output transmitted from said connection node.

28. (new) The satellite broadcasting receiver according to claim 27, wherein each of said first to (n+1)th amplifiers includes a high electron mobility transistor.

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29. (new) The satellite broadcasting receiver according to claim 27,

A7 further comprising a frequency converting circuit converting an output from said (n+1)th amplifier to an intermediate frequency signal.
